

### REMARKS

Claims 1 to 5, 13 to 15, and 20 to 22 have been amended. Claims 12, 16 to 19, and 23 to 33 have been canceled. New claims 34 to 44 have been added.

Claims 1 to 11; 13 to 15; 20 to 22; and 34 to 44 remain pending in the application. Of these, claims 1 and 13 and new claims 39 and 44 are independent system claim. Claim 20 is a method claim that is dependent upon claim 1, and new claim 40 is a method claim that is dependent upon new claim 39. New independent claim 34 is directed to a dental implant.

Claims 1 and 13 have been amended to define in the preamble dental implant systems that bear compressive mastication load conditions after installation. As further defined in the main body of the claims, the systems include a rigid implant having a connector sized and configured to be attached to a dental prosthesis. The systems also include an expandable polymer sheath suitable for placement within a jawbone. The sheath includes polymer material means for functioning as an artificial periodontal membrane. The polymer material means also expands and thereby compresses surrounding jawbone structure in response to fitment of the rigid implant into it. While in compression, the polymer material means is operative for bearing compressive mastication load conditions.

New claims 39 and 44 are patterned after amended claims 1 and 13, respectively, and further define in the preamble and in the body of the claims that the compressive mastication load conditions are borne without a presence of osteo ingrowth. Osteo ingrowth may occur after installation, but the language of the claim is intended to mean that the presence of osteo ingrowth is not required to impart a compressive mastication load bearing response to the sheath.

New independent claim 34 is directed to the features of an expandable polymer sheath as defined in claims 1 and 13 in combination with other elements. New independent claim 43 is patterned after claim 34 and further defines that the compressive mastication load conditions are borne without a presence of osteo ingrowth. As before stated with respect to new claims 39 and 44, osteo ingrowth may occur after installation, but the language of the claim is intended to mean that the presence of osteo ingrowth is not required to impart a compressive mastication load bearing response to the sheath.

The claims stand rejected in various combinations under 35 U.S.C. §102(b) based on Nicholson et al. U.S. 5,268,001 (Nicholson) and under 35 U.S.C. §103(a) based on Nicholson or Aker U.S. 6,152,738 (Aker) in view of Nicholson.

Neither Nicholson nor Aker teach, suggest, or contemplate the subject matter defined in amended independent claims 1, 13, and 34 and new claims 39, 44, and 43 (which are patterned after them). Nicholson is directed to solution of a different problem using technology that serves a different purpose. In Nicholson, a bone fastener fixes either a suture or rivet in bone, for the purpose of fastening soft tissue in tension to bone (see col. 7, lines 15-24). Nicholson also does not teach, suggest or contemplate a rigid insert that has a connector to which a dental prosthesis can be attached. Nothing in Nicholson concerns the dental art, or a jawbone, where there is an altogether different problem to solve; namely, how to implant a prosthesis to which a dental prosthesis can be attached, and that functions as a artificial periodontal membrane that is also capable of withstanding compressive mastication load conditions (as defined in claims 1, 13, and 34), and, furthermore, a prosthesis that is capable of withstanding compressive mastication load conditions without a presence of osteo ingrowth (as defined in new claims 39, 44, and 43). Nicholson does not teach, suggest, or contemplate a solution to this problem, and a document that does not fairly contemplate a problem cannot be fairly used to teach or render obvious a solution to that problem. Nicholson does not teach or suggest or contemplate or predict that a polymer material means can be used in a dental implant system to function as an artificial periodontal membrane, while also expanding and thereby compressing surrounding jawbone structure in response to fitment of the rigid implant into it, for bearing compressive mastication load conditions after installation (as defined in claims 1, 13, and 34), and furthermore bearing these compressive load conditions without a presence of osteo ingrowth (as defined in new claims 39, 44, and 43).

Aker also does not teach or suggest the subject matter defined in amended independent claims 1, 13, and 34 and new claims 39, 44, and 43 (which are patterned after them). Aker's prosthesis is threaded so that it can be screwed into jawbone (see, e.g., column 3, line 67, to column 4, line 3). There is nothing in Aker that teaches or suggests or contemplates a dental implant system that includes a polymer sheath having polymer material means that is operative for expanding and compressing surrounding jawbone structure in response to fitment of a rigid implant and, while in compression, for bearing compressive mastication load conditions after installation (as

defined in claims 1, 13, and 34), and furthermore bearing these compressive load conditions without a presence of osteo ingrowth (as defined in new claims 39, 44, and 43).

Further, there is no fair combination of Nicholson and Aker, as the technical problems they confront and the technical solutions to the problems they propose are not compatible. Neither teaches, suggests, contemplates, or predicts that polymer material means can be used in a dental implant system to compress surrounding bone structures by expansion while also serving as an artificial periodontal membrane, to provide compressive mastication load bearing response (a defined in claims 1, 13, and 34), and furthermore bearing these compressive load conditions without a presence of osteo ingrowth (as defined in new claims 39, 44, and 43).

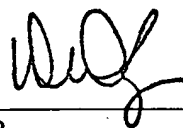
In this case, the preamble of the independent claims, as amended, cannot be ignored, but should properly be read and considered to given meaning to the claims and to define the invention. The preamble constitutes a limitation of the claims, and should be given consideration in determining patentability, particularly when, as here, the claimed systems are structurally distinguishable from the prior art in significant ways.

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Amendment B  
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Reconsideration in view of the foregoing amendments and remarks and allowance of claims 1 to 11, 13 to 15, 20 to 22, and 34 to 44 are respectfully requested.

Respectfully Submitted,

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